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ABSTRACT

This brief review of the Educational Resources Information Center (ERIC) system is intended to make users more aware of (1) the system as a whole, (2) the process of indexing educational literature for the database, and (3) the role of the Thesaurus of ERIC Descriptors in the overall information dissemination process. An overview of the ERIC system is provided, and a discussion of ERIC vocabulary maintenance includes descriptions of the 1977 Vocabulary Improvement Project (VIP) and the Vocabulary Review Group. In addition, information retrieval methods and tools for manual and computer searching are considered; and a discussion of ERIC's indexing provides general guidelines as well as detailed discussions of educational and age level descriptors, identifiers, and publication types. Further hints for relevant retrieval consider non-subject access and the target audience. Also included in the text are a listing of ERIC's searchable fields and vendors' field access labels; sample Resources in Education (RIE) and Current Index to Journals in Education (CIJE) entries; listings of mandatory educational and age level descriptors, publication/document types, and descriptors corresponding to publication type categories; and a guide for assigning pubtype codes. (KM)

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# INDEXING AND RETRIEVAL IN ERIC: THE 20TH YEAR

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OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT  
EDUCATIONAL RESOURCES INFORMATION  
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## INTRODUCTION

This 11th edition of the *Thesaurus of ERIC Descriptors* is significant because it coincides with the twentieth anniversary of the ERIC database. Both ERIC and the *Thesaurus* have come a long way since 1966, from a fledgling project within the federal government to an information system known and accessed worldwide. ERIC has grown from a database of 3,000 items to one of 600,000 references. Its *Thesaurus*, which began with 2,300 core terms (compiled by "free indexing" 1,700 documents on teaching the disadvantaged), is now recognized as the definitive vocabulary of education and a model for other databases.

## THE ERIC SYSTEM

The Educational Resources Information Center (ERIC) is a national information system established in 1966 by the federal government to provide ready access to educational literature by and for educational practitioners and scholars.<sup>1</sup> It is funded today by the Office of Educational Research and Improvement (OERI) of the U.S. Department of Education. ERIC collects and disseminates virtually all types of print materials, mostly unpublished, that deal with education—for example, program descriptions and evaluations, research reports and surveys, curriculum and teaching guides, instructional materials, and resource materials.

Central ERIC at OERI establishes policy and oversees the operation of the ERIC system. Centers of educational expertise at universities and professional associations operate the 16 decentralized ERIC Clearinghouses.<sup>2</sup> These Clearinghouses identify, acquire, and process educational information in specific subject areas

such as elementary, secondary, and higher education, educational management, social studies, languages and linguistics, and rural and urban education. Support organizations perform other technical services for the ERIC system. Among these services are maintenance of central computer tape files, reproduction of noncopyrighted literature, and development of specialized publications, such as this *Thesaurus*.

ERIC acquires and announces the availability of educational literature (e.g., journal articles, research reports, conference papers, bibliographies, innovative practice reports). The literature is cataloged, abstracted, and then indexed using key words from the controlled vocabulary—the *Thesaurus of ERIC Descriptors*. Abstracted citations for nonjournal literature appear each month in a bibliographic journal, *Resources in Education* (R/E). Annotated references to journal articles are found in the companion monthly publication *Current Index to Journals in Education* (CIE). With the help of the *Thesaurus*, all materials processed by ERIC can be identified by manual searches of the printed indexes in R/E and CIE or by computer searches of the ERIC tapes. ERIC provides convenient access to the actual text of nearly 270,000 documents at over 700 libraries and resource centers that subscribe to and maintain ERIC microfiche collections of most documents cited in R/E (see footnote 5, p. xii).

Important components of ERIC are its subject-area Clearinghouses. Responsible for locating, acquiring, and selecting literature in its respective area of education, each Clearinghouse indexes that material using the terms from the *Thesaurus*. Thus each Clearinghouse has a stake in the content of the *Thesaurus* and contributes regularly to updating of the ERIC vocabulary.

<sup>1</sup>See Delmer J. Trestler's *ERIC—The First 15 Years: A History of the Educational Resources Information Center* (ERIC Document Reproduction Service No. ED 195 209).

<sup>2</sup>Note the "scope of interest" statements on the inside back cover of this publication to see the diversity of the ERIC system and to identify individual Clearinghouses' areas of expertise.

## VOCABULARY MAINTENANCE

### The Vocabulary Improvement Project

After years of collecting, indexing, and disseminating educational literature, ERIC found that the thesaural constructions and terminology developed in 1968 (when the database was established) were not sufficient for the needs of the 1980s. The vocabulary, allowed to develop slowly over the years, needed some major revisions to bring it up-to-date. Many Descriptors entered in ERIC's early years had become obsolete. Others originally entered without definitions needed some clarification in order to be understood and used consistently. The hierarchical relationships needed some rearranging in order to reflect current thinking in education. As a result, in 1977 Central ERIC made a major commitment to upgrade the quality and usefulness of the controlled vocabulary by revising the Thesaurus totally—an unprecedented effort for an established, ongoing information system. The Vocabulary Improvement Project (VIP) was undertaken to implement this unusual and major revision. All 16 ERIC Clearinghouses, the ERIC Processing and Reference Facility, and users of the ERIC system were asked to participate in the project.

The project was conducted in two phases, labeled "Thesaurus Review" and "Production." Phase I took place between March and August 1978, during which time Clearinghouse vocabulary coordinators, users, and database searchers critically evaluated the Thesaurus. By August, over 60,000 Descriptor assessments had been completed, about 10,000 by non-ERIC personnel. The objectives of this phase were to verify the utility of Thesaurus terms, identify problems requiring action, and recommend solutions.

An interim period, September and October 1978, followed Phase I. Clearinghouse vocabulary coordinators were assigned groups of Descriptors, for which they collated and assessed Phase I evaluations. Having decided that efficient retrieval was the overriding VIP objective, the axiom "Usage determines meaning" was adopted for Phase II.

During Phase II (November 1978 through September 1979) VIP personnel wrote new Scope Notes and modified old ones, merged synonymous terms, updated terminology, and revised cross-references. Over 10,000 separate transactions were prepared over the 11-month period. All transactions were keyed into an interim "Play Thesaurus" (as distinguished from the "real" Thesaurus). Because of the absence of an electronic mail system or online revision procedures, the Play Thesaurus was used to coordinate across geographic distances all recommendations of the Clearinghouses and the Facility. The Play Thesaurus was updated 12 times during the project. All suggested adds, deletes, and changes were included in the Play Thesaurus, identified by originating Clearinghouse, and coded (approved/disapproved) by

the Facility lexicographers. In this way, all VIP staff were informed of each action taken on specific terms. When they had objections or suggestions, they could respond in a special "Comment" field that was incorporated within the Descriptor display for Inter-Clearinghouse messages.

After the distribution of the last edition of the *Play Thesaurus*, Clearinghouse vocabulary coordinators and the Facility lexicographic staff spent several weeks reviewing the final recommendations and resolving unforeseen conflicts. The working copies of the "new" Thesaurus were ready by March 1980 for use in ERIC indexing. The master Thesaurus computer tapes—as well as the RIE and CIJE resume files—were then updated to reflect the VIP changes.

By the time the VIP project was completed, extensive revisions had taken place. The 1980 *Thesaurus of ERIC Descriptors—Completely Revised* (the 8th edition) reflected the following: over 600 new Descriptors, over 1,000 deleted Descriptors, and over 1,400 new or modified Scope Notes. This edition of the Thesaurus also reflected deliberate changes in sexist terminology.

The Vocabulary Improvement Project was a massive undertaking—an unprecedented effort by a large information system to systematically evaluate its indexing authority, to cross-check it against the database, and to let usage determine meaning and outcome of each term.<sup>2</sup> Although such a thorough revision will not be repeated in the near future, ERIC remains committed to maintaining a current and accurate vocabulary.

### The Vocabulary Review Group

As a result of the success of the Vocabulary Improvement Project, some of the procedures established for it have been adapted for general ERIC implementation. Three features in particular remain: a specific vocabulary coordinator from each Clearinghouse to monitor the language of its own scope area (see p. v); user participation in vocabulary review; and a regular interactive process for vocabulary maintenance.

The Clearinghouse vocabulary coordinators, the ERIC lexicographic staff, a Central ERIC representative, and members from the user community now comprise the ERIC Vocabulary Review Group. The following user groups are represented: school librarians, university librarians, practitioners, and online search facilities. The Review Group both initiates and evaluates new terminology or modifications to existing vocabulary.

The interactive nature of the evaluation process allows all points of view to be heard before decisions are made in Thesaurus revisions. Effective retrieval remains the objective.

ERIC continues actively to serve the educational community. Users are encouraged to submit comments on this edition and suggestions for future editions of the

<sup>2</sup>See Barbara Booth's "A 'New' ERIC Thesaurus, Fine-Tuned for Searching," *Online* v3 n3 July 1979 pp. 20-29.

Thesaurus to Alan Moorehead, Director, ERIC, Department of Education, Washington, DC 20200.

## INFORMATION RETRIEVAL METHODS AND TOOLS

Retrieval takes two forms: manual and computer (batch or online). For manual or batch searching, ERIC provides several printed reference tools; for online searching, a computer terminal provides immediate access to the same information cumulated from those reference tools.

### Manual Searching

Manual searching makes use primarily of the monthly printed versions of *Resources in Education* (RIE) and *Current Index to Journals in Education* (CIE). Users locate titles in these publications through various indexes. RIE provides a Subject Index (made up of Major Descriptors and Major Identifiers—see pp. xiv and xvi), an Author Index,<sup>1</sup> an Institution Index (showing institutions responsible for a document and/or the agency sponsoring it), and a Publication Type Index (see p. xvii). In CIE, there are the Subject Index, Author Index (see footnote 4), and Journal Contents Index (indicating titles of articles listed by journal names). Semianual or annual cumulations of both publications, including their indexes, are provided.<sup>2</sup>

### Computer Searching

Computer searching permits a review of part or all of the ERIC database (RIE and CIE) in a single effort, eliminating the difficulty of scanning separate monthly or even annual publications. Computerized retrieval makes possible searches, not only of Major and Minor Descriptors and Identifiers, authors, institutions, specific journals, and Publication Types, but

also of words or phrases not found in any of the printed indexes. In short, computer searching gives users the option to search every word of the document resume (i.e., bibliographic information, Descriptors, Identifiers, and abstracts or annotations) as published in RIE and CIE. It should be noted that full-text searching in ERIC refers to searching individual words of the document resume and not of the document itself.

An exception to this traditional guideline is ERIC's new "ERIC Digests Online" (EDO) file, made available on The Source's ED-Line in April 1986. This new database consists of approximately 200 short reports ("digests") on current issues in education prepared by all 16 of the ERIC Clearinghouses. The full text of each digest is online, and each digest can be accessed by menu, key words (Descriptors from the ERIC Thesaurus), or fast command. Each digest also has its own "Notespace" for user comments. The EDO file will be expanded gradually. Most of the digests in EDO are announced in RIE and therefore can be identified in computer searches of ERIC via DIALOG, BRS, or SDC; however, the full text of each digest is currently available online only via The Source.

**NOTE:** Procedures for searching the ERIC database vary with each of the major online vendors, DIALOG, BRS, and SDC's Orbis. See p. xii for the comparative chart, "ERIC's Searchable Fields and Vendors' Field Access Labels," or consult the vendor training materials for specific online commands.

A review of the procedures outlined in the "ERIC's Indexing" section of this Introduction (see p. xii) is useful in determining whether manual or online searching is most appropriate. The relevant strategy then can be devised using the Thesaurus and possibly the Identifier Authority List (see p. xvi).

<sup>1</sup>For documents/articles listing three or more authors, only the first author is indexed in ERIC. For collected works or proceedings containing works by three or more authors and not listing an editor or compiler of the whole, no authors are indexed; however, individual author names appearing in such collections are usually included within the text of the ERIC abstract/annotation and can be retrieved by full-text computer searching.

<sup>2</sup>RIE, covering education documents, is issued monthly by the Superintendent of Documents, U.S. Government Printing Office (GPO), Washington, DC 20402. GPO also issues semianual RIE indexes.

CIE, covering education journal articles, is published monthly by The Oryx Press, 2214 North Central at Encanto, Phoenix, AZ 85004-1483. Oryx Press also publishes the following:

—CIE Semianual Cumulations

One volume cumulations of all main entries (descriptions of journal articles) and all indexes for a 6-month period. Prior to 1979, these were published by Macmillan Information, 866 Third Avenue, New York, NY 10022.

—RIE Annual Cumulations

Each in three volumes, two of cumulated main entries (abstracts) and one of cumulated indexes. Similar cumulations prior to 1979 were published under the RIE Educational Documents Abstracts/Index by Macmillan Information.

—Microfiche Cumulations

RIE Main Entry 1966-1980 and Annual Updates; CIE Main Entry 1969-1980 and Annual Updates; Combined RIE/CIE Subject and Fiche Index 1966-1980 and Annual Updates; Complete RIE/CIE Cumulation 1966-1980 and Annual Updates.

Most RIE documents, identified by ED numbers in the ERIC database, can be ordered (microfiche or paper) from the ERIC Document Reproduction Service (EDRS), 3900 Wheeler Avenue, Alexandria, VA 22304-5110. EDRS delivers monthly RIE microfiche sets to over 700 standing order subscribers. Cumulated RIE indexes on microfiche (1966 present) by subject, author, and institution, as well as by RIE title, are also available from EDRS.

## ERIC's Searchable Fields and Vendors' Field Access Labels\*

Searchable Field	Field Label			Searchable Field	Field Label		
ERIC	BRS	DIALOG	SDC	ERIC	BRS	DIALOG	SDC
1. Descriptor—				10. Geographic Source of Document (field added 1979)	GS	GP-	AO
a. Multword Descriptor	4/yr/mon	no label necessary	no label necessary				
b. Descriptor Word(s)—word(s) within descriptor	DE	1/DE	1/W	11. Institution— corporate author	IN	CS-	1/CS
c. Single Word Descriptor	MJ/MN	1/DF	1/T	12. Sponsoring Agency—funding agency	SP	SP-	1/SPD
d. Major Subject Descriptor	MJ	1/MAJ	*	13. Journal Citation	SO	1/V-	1/JO
e. Minor Subject Descriptor	MN	1/MN		14. FAB Segment—ERIC or CUE (derived from ERIC Accession Number field)	EDAN	1/ED	1/RE/FS
2. Identifier—de- scribes subject fields with terms not found in ERIC Thesaurus					EJAN	1/EJ	1/CUE/FS
a. Multword Identifier	1D (free text)	no label necessary	no label necessary	15. Availability	AV	AV-	1/AV
b. Identifier Word(s)—word(s) within identifier	1D (free text)	1/D	1/W	a. ERIC availability (borrow from EDRS)			
c. Single Word Identifier		1/F	1/T	b. Alternate availability			
d. Major Subject Identifier		1/MAJ	*	16. Governmental Status of Document (field added 1979)— federal, state, local	GV	GL-	AO
e. Minor Subject Identifier		1/MN		17. Report Number	NO	PN-	1/NU
3. Title	TI	1/TI	1/TI	18. Grant, Contract Number	NO	CN-	1/NU
4. Abstract/ Annotation	AB	1/AB	1/AB	19. Publication Type	PT	DT-	1/DT
5. Personal Author	AU	1/AU	1/AU	20. Language of Document (field added 1979)— language of text	LG	LA-	AA
6. ERIC Accession Number—document number as found in RE or CUE	AN	Type ED# or EJ#	1/AN	21. Target Audience (field added 1981)	1D	TA-	1/10
7. Clearinghouse Accession Number—number assigned to document by an ERIC Clearinghouse	CH	AN-	1/CHAN	22. Descriptive Note—extends description of publication, e.g., "Paper presented at Vocational Education Association National Conference"	NT	1/T	1/NO
• Clearinghouse Code—two letter prefix to Clearinghouse Accession Number	CH	CH-	1/CC				
8. Publication Year	YR	PY-	1/SD				
9. Update	AN	UD-	1/UP				

\*Adapted from "Searchable Fields in ERIC—A Computer User's Guide via BRS, DIALOG, ORBIT," a brochure prepared by the ERIC Clearinghouse on Rural Education and Small Schools (1986).

## ERIC'S INDEXING

### General Guidelines

Knowing how something is stored obviously makes finding it easier. Understanding the methods by which literature is prepared for input into a computerized data-

base facilitates retrieval of that literature. Just as an indexer must consider the user's needs, so must the user/searcher be aware of the rules and guidelines followed during the indexing process.

ERIC's indexing aims to provide subject access to the documents and articles contained in the data-

base and announced in **RIE** and **CJE**. To this end, two fundamental rules outweigh all others:

- Index only what is in the document.
- Index at the level of specificity of the document.

These rules mean that implied statements are not indexed, and that very general Descriptors (e.g., SCHOOLS, rather than HIGH SCHOOLS or PRIVATE SCHOOLS or MEDICAL SCHOOLS) are not used unless that subject is treated extremely broadly in the document. These two guidelines should be kept in mind by users for effective retrieval.

Indexing rules are set forth in the ERIC Processing Manual,<sup>1</sup> the system's official guide. Additional instructions, suggestions, and specific examples are detailed in the 400-page training-oriented ERIC Abstractor/Indexer Workbook.<sup>2</sup>

### **Major points relevant to retrieval are:**

1. "Indexable" concepts, or key words, of a document are translated into Descriptors from the Thesaurus. Using the Thesaurus helps maintain consistency and avoids proliferation or scattering of concepts in the subject indexes.
2. Precoordinated (i.e., multiple-word) Descriptors are used whenever possible, rather than two or more Descriptors representing their component concepts. Thus SCIENCE CURRICULUM would be used rather than SCIENCE plus CURRICULUM.
3. Descriptors are assigned to identify subject content, educational level, age level, validation status of a program, research methodology employed, tests utilized, form or type of document, etc. (See pp. xv, xvi, xvii for lists of Mandatory Educational Level Descriptors, optional Age Level Descriptors, and Publication Types.)
4. Up to six "Major" Descriptors are assigned to a single document. They cover the main focus of the document. Major Descriptors appear in the RIE and CUE printed Subject Indexes. In the document resume section of RIE and the main entry section of CUE, Major Descriptors are identified by an asterisk.
5. Additional Descriptors, called "Minor" Descriptors, are also assigned to a document or journal article. They appear in the printed resumes (without an asterisk) but do not appear in the printed Subject Indexes of RIE or CUE. (See examples that follow.)
6. Major Descriptors cover the main focus or subject of a document. Minor Descriptors indicate less important aspects within the document, as well as such nonsubject features as methodology, form, or educational level.

**NOTE:** Major Descriptors appear in the Subject Indexes of *AIIE* and *CIJE* and therefore can be searched manually. Minor Descriptors do not appear in the Subject Indexes but are searchable by computer.

**SAMPLE R/E ENTRY**

**ED 353 565** **ED 367 363**  
Anderson Richard C. And Others  
Reviewing a Division of Readers: The Report of the  
Commission on Reading.  
Illinois Dept., Urbana Center for the Study of  
Reading, Illinois Institute of Education,  
Urbana, Illinois.  
Special Agency-National Inst. of Education (ED),  
Washington, DC.  
Pub Date=4/3  
Content=ED 353 565  
Note=13 pp.  
Available from=University of Illinois, Reviewing  
a Division of Readers, ED Doc 353, Section  
A, Chicago, IL 60620-0100 (16 pp ea., in-  
cluding preface, executive order, and 13 doc)  
Pub Type=Basic (Eds)-Report/Description (13)  
Full Text=ED 353 565/ED 367 from Preface.  
Description=Classroom Environment, Classroom  
Techniques, Elementary Secondary Education,  
Literacy, Literacy Education, Professional  
Development, Reading Improvement, Reading  
Instruction, Reading Processes, Reading  
Tools, Teacher Education, Teacher Effective-  
ness.  
Fulfilling a need for careful and thorough  
synthesis of an extensive body of findings on  
reading, this report presents leading experts' inter-  
pretations of their current knowledge of reading  
and the state of the art and practice of teaching  
reading. The introduction contains two claims: (1)  
the knowledge is now available to make world-  
wide improvements in reading throughout the  
United States, and (2) in the primary work in the  
classrooms of the best teachers in the best schools  
could be introduced everywhere, improvement in  
reading would be dramatic.

DESCRIPTIVE

### **SAMPLE CUE ENTRY**

EJ 320 620  
The University and the Community: Partnerships for Excellence in Teacher Education. Koch, Robert A., And Others. *Journal of Teacher Education*, 37, 3, 1986, p70-74. (Review: LHM)  
Development: Alternative Teacher Education, "Educational Corporation," Cooperative Programs, Higher Education, Program Development  
Identifiers: Sun Coast Area Teacher Training Program, Florida  
The Sun Coast Area Teachers Training Program is an honors program at the University of South Florida which complements the regular education program. It maintains partnerships with local schools, organizations, and educational agencies as well as the legislature, business community and the University of South Florida Medical School. (MII)

**The ERIC Processing Manual (1980-82 revision) is available for \$40.00 from the ERIC Processing and Reference Facility, 4833 Flaggay Avenue, Suite 301, Bethesda, MD 20814. Sections relevant to retrieval, Section 6 Abstracting/Annotation (Sep80) and Section 7 Indexing (Oct80), may be purchased for \$3.75 each from the ERIC Facility. The manual also appears in the ERIC Monograph Collection (entire manual, ED 219 Q82, Abstracting Section, ED 219 Q87, Indexing Section, ED 219 Q88) and is available from the ERIC Document Reproduction Service.**

Revised edition, 1981, in ERIC Microfiche Collection (ED 207 614) and available from the ERIC Document Reproduction Service

## Educational/Age Level Descriptors

Since ERIC indexes educational literature from all levels—preschool through postdoctoral, infant through adult—it is important, where appropriate, to "tag" documents with "leveling" terms. These leveling terms are Descriptors from the Thesaurus that are included in the Descriptor Field of the AIF and CJE resumes. They refer to either the educational level or age level of the population discussed in the document. Sometimes both educational and age level Descriptors may be assigned.

Assignment of at least one of the "Educational Level" Descriptors is mandatory for every document and journal article, unless it is entirely inappropriate (such as an essay on "the role of education in society"). Since a variety of Thesaurus terms could conceivably be used to tag these levels, ERIC has developed lists of preferred leveling Descriptors. The Mandatory Educational Level Descriptors procedure was implemented in February 1975.

This required assignment of Educational Level Descriptors has a practical implication for the searcher. For example, a computer search of the Descriptor **READING SKILLS** would pull out all the references in ERIC to reading skills, regardless of educational level. Adding the Descriptor **SECONDARY EDUCATION** would limit the output to those references dealing with grades 7 through 12; adding **HIGH SCHOOLS** instead would limit the output to reading skills in the upper secondary grades. Similarly, the Descriptor **TWO YEAR COLLEGES** would focus a search more discretely than would the term **POSTSECONDARY EDUCATION**. Thus the same guideline holds here in searching as in subject indexing: use the most specific Descriptor available for a specific search.

On the other hand, a document indexed at a narrow educational level would, in most instances, not also be "indexed up" to a broader level, and exhaustive searches of broader levels require that each of their respective narrower levels also be used. For example, one would need to search **SECONDARY EDUCATION**, **JUNIOR HIGH SCHOOLS**, **HIGH SCHOOLS**, and **HIGH SCHOOL EQUIVALENCY PROGRAMS** to achieve an exhaustive search at the **SECONDARY EDUCATION** level.

**NOTE:** Use the most specific Educational Level Descriptor possible. Use broader and narrower Educational Level Descriptors to retrieve at broader levels.

Age Level Descriptors were mandatory from 1980 until mid-1982, when the requirement was abolished. Eleven Age Level Descriptors still are used to index age level, however. Each covers an approximate age range, and one or more are used when a document or journal article is concerned strictly with age-level groups or populations. It should be noted that the use of specific other terms such as **ADOPTED CHILDREN** and **ADULT**

**DROPOUTS** would eliminate the need also to index such generic terms as **CHILDREN** and **ADULTS**.

The Mandatory Educational Level Descriptors and the Age Level Descriptors appear with their Scope Notes in the following charts.

### MANDATORY "EDUCATIONAL LEVEL" DESCRIPTORS (Procedure Implemented February 1975)

#### • EARLY CHILDHOOD EDUCATION

Scope Note: Activities and/or experiences that are intended to effect developmental changes in children from birth through the primary years of elementary school (grades K-3).

#### • PRESCHOOL EDUCATION

Scope Note: Activities and/or experiences that are intended to effect developmental changes in children from birth to entrance in kindergarten (or grade 1 when kindergarten is not attended).

#### • PRIMARY EDUCATION

Scope Note: Education provided in kindergarten through grade 3.

#### • ELEMENTARY SECONDARY EDUCATION

Scope Note: Formal education provided in kindergarten or grade 1 through grade 12.

#### • ELEMENTARY EDUCATION

Scope Note: Education provided in kindergarten or grade 1 through grade 5, 6, or 7.

#### • ADULT BASIC EDUCATION

Scope Note: Education provided for adults at the elementary level (through grade 8), usually with emphasis on communicative, computational, and social skills.

#### • PRIMARY EDUCATION

Scope Note (See above.)

#### • INTERMEDIATE GRADES

Scope Note: Includes the middle and/or upper elementary grades, but usually 4, 5, and 6.

#### • SECONDARY EDUCATION

Scope Note: Education provided in grade 7, 8, or 9 through grade 12.

#### • JUNIOR HIGH SCHOOLS

Scope Note: Providing formal education in grades 7, 8, and 9—less commonly 7 and 8, or 8 and 9.

#### • HIGH SCHOOLS (Changed from "Senior High Schools" in March 1980)

Scope Note: Providing formal education in grades 9 or 10 through 12.

#### • HIGH SCHOOL EQUIVALENCY PROGRAMS

Scope Note: Adult educational activities concerned with the preparation for and the taking of tests which lead to a high school equivalency certificate, e.g., General Educational Development program.

#### • POSTSECONDARY EDUCATION

Scope Note: All education beyond the secondary level—includes learning activities and experiences beyond the compulsory school attendance age, with the exception of adult basic education and high school equivalency programs (before April 78, restricted to "education beyond grade 12 and less than the baccalaureate level").

#### • HIGHER EDUCATION

Scope Note: All education beyond the secondary level leading to a formal degree.

#### • TWO YEAR COLLEGES (Changed from "Junior Colleges" in March 1980)

Scope Note: Public or private postsecondary institutions providing at least 2, but less than 4, years of academic and/or occupational education.

**OPTIONAL "AGE LEVEL" DESCRIPTORS****INFANTS**

Scope Note: Aged birth to approximately 21 months

**YOUNG CHILDREN**

Scope Note: Aged birth through approximately 6 years

**CHILDREN**

Scope Note: Aged birth through approximately 12 years

**TODDLERS**

Scope Note: Approximately 1-3 years of age

**PRESCHOOL CHILDREN**

Scope Note: Approximately 2-5 years of age

**PREADOLESCENTS**

Scope Note: Approximately 9-12 years of age

**ADOLESCENTS**

Scope Note: Approximately 13-17 years of age

**YOUNG ADULTS**

Scope Note: Approximately 18-30 years of age

**ADULTS**

Scope Note: Approximately 18+ years of age

**MIDDLE AGED ADULTS**

Scope Note: Approximately 45-65 years of age

**OLDER ADULTS**

Scope Note: Approximately 65+ years of age

The Mandatory Educational Level Descriptors are flagged within the body of the Thesaurus with a special instruction in the Scope Note:

**SECONDARY EDUCATION**

IN Education provided in grade 7, 8, or 9 through grade 12 (note: also appears in the list of other major educational level descriptors)

**NOTE:** As mandatory terms, Educational Level Descriptors always have precedence over the Age Level terms. Educational Level terms are never Major Descriptors unless they are the subject of the document.

**Identifiers**

"Identifiers" are key words or "indexable" concepts intended to add a depth to subject indexing that is not always possible with Descriptors alone. Identifiers are not found in the Thesaurus, since they are generally: (1) proper names, or (2) concepts not yet represented by approved Descriptors. In the resume sections of *ERIC* and *CUE* they appear in a separate field below the Descriptors. They may be "majored" with an asterisk just as Descriptors are. Major Identifiers, like Major Descriptors, appear in the printed Subject Indexes of *ERIC* and *CUE*.

\*The IAL is available for purchase from the ERIC Processing and Reference Facility. Alphabetical Display (\$20.00, approx. 350 pp.), Category Display (\$20.00, approx. 200 pp.) The main Alphabetical Display lists all approved Identifiers in the ERIC files, alphabetically A to Z, together with postings data for each, some cross references and Scope Notes are provided. The Category Display serves as a companion volume to the main display, listing Identifiers alphabetically within 20 broad categories (e.g., Geographic Locations, Project/Programs, Tests/Testing).

\*Guidelines are detailed in the ERIC Processing Manual, Section 8: Vocabulary Development and Maintenance (Part 2)—Identifiers (AdP81), available for \$3.75 from the ERIC Facility or as ED 219 030 from the ERIC Document Reproduction Service.

**IDENTIFIERS**

ED 330 031  
Summary of Changes in Descriptors Approved by the ERIC Thesaurus Committee, January 1980  
1980, 133 012 020-35 Jan 22 1980 (ERIC Document Reproduction Service)

Descriptors: Higher Education; Individualizing Education; Student Counseling; Adult Education; Extracurriculum; Group Membership; Neighborhood; Communication; Standards; Curriculum; Educational Policy; Competition; Drug Abuse; Learning; Early Education; Administration; Athletics; Education; College Education

→ **Identifiers** \*Additional Candidate Adhesive Address Book, Appendix  
The National Computer Address Association's publication offering information about financial and business addresses, company associations, membership, products, publications, government, court, employment, policy, history and various sections, this information are summarized (NCA)

Identifiers are used to index geographic locations, personal names, test or program names, specific legislation, etc., as well as concepts not found in the Thesaurus. In the latter case, the Identifier Field provides a "tryout" for candidate Descriptors. Identifiers are examined regularly for their suitability as Descriptors. Since ERIC is a literature-based information system, every Descriptor must be supported by a document or article in the database. Identifiers often provide that evidence and serve as the justification for Clearinghouse proposals for new Thesaurus terms.

Recent examples of former Identifiers that now appear in the Thesaurus as Descriptors are COMPUTER NETWORKS, CONFLICT OF INTEREST, FACULTY PUBLISHING, BEHAVIORISM, ACCESS TO INFORMATION, CORPORATE EDUCATION, ANGER, SCIENCE AND SOCIETY, and COGNITIVE DISSONANCE. New Descriptors are announced in the monthly issues of *ERIC* and *CUE*. Identifiers that are proper names (person, place, program, organization, etc.) rarely become Descriptors.

As of mid-1980, all terms in the Identifier Field must conform in format to terms in the ERIC Identifier Authority List \* (IAL) or to the rules and guidelines for creating new Identifiers. Items are purged from the IAL as they are upgraded to Descriptor status and shifted to the Thesaurus.

As Identifiers are elevated to the Thesaurus, their index postings are transferred to the Descriptor field. All such Identifier-to-Descriptor conversions occurring before December 1980 are fully reflected in the ERIC file. December 1980 was the last time a general reload of the ERIC backfile was performed. Conversions since that time, therefore, are not fully reflected in the database, and posting counts for Descriptors added after December 1980 may represent combined Descriptor/Identifier usages. (See related discussion under "Transferred Descriptors," p. viii.)

## NOTE:

1. Like Major Descriptors, Major Identifiers appear in the Subject Indexes of ERIC and OCLC.
2. Major and Minor Identifiers can be searched online similarly to the way Descriptors can. See 'ERIC's Searchable Fields' on p. xii for variations among vendors.
3. To be safe, searches of Descriptors with add dates after December 1990 (when the last general ERIC reload occurred) should consider usages (postings) not only in the Descriptor field, but in the Identifier field as well.

### Publication Types

## **PUDTYPE Codes**

All documents are categorized by their 'form' of publication (i.e., Publication Type or PUBTYPE) as well as by their subject. A special section of the document resume identifies the PUBTYPE by means of a three-digit code. PUBTYPES are assigned to every document and journal article (beginning September 1974 for *PAE*, August 1979 for *CIJ*). They appear in the monthly printed issues of *PAE* along with the bibliographic information.

ED 268 470  
CS 610 256  
All One Child Can Learn to Read: Guide to Family  
and Community Action, Chicago, IL (1970).  
M A 3734  
Describes for Change, Chicago, IL.  
For Grades 3  
Note = 17p.  
Available from: Describes for Change, 220 South  
State St., Suite 400, Chicago, IL 60604 (6130).  
including postage.  
Part I: One-Child: Non-Classroom Data  
128p. Price = 25p plus postage, PC Mail and  
one from ED 268.  
Description: Community involvement, Educa-  
tional Empowerment, Evaluation Criteria,  
Family Participation, Reading Achievement,  
Reading Improvement, Reading Instruction,  
Reading Skills, School Community Programs,  
School Organization, Team Empowerment.  
Identifiers: Illinois (Chicago), School Board, IL  
Intended for parents and all citizens con-  
cerned about improving Chicago's 392 public  
schools, this handbook explains how important  
reading is to a student's education and future.

Printed issues of CUE do not include PUBTYPE designations. However, all assigned PUBTYPES for both AIE and CUE are on the ERIC tapes and are searchable by computer.

In RAE, they are also searchable manually in the Publication Type Index (first published in July 1979). This index is organized numerically by PUBTYPE code and provides reference to title and accession (ED) number for each document having that code.

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### 1959) Crédit : Non-Elaboration

## Alternative Education Programs for Disruptive Students

## Advocacy as Civic Engagement: Turning the Shovel Digger to Activist for Sustainable Landuse Transition in Nigeria

**Codes and category names for the 36 PUB  
TYPES are**

CODE	PUBLICATION/DOCUMENT TYPES
010	BOOKS
	COLLECTED WORKS
020	=General
021	=CULTURAL/EDUCATIONAL (See 040 130)
022	=SERIALS
030	CREATIVE WORKS (Literature, Drama & the Arts)
	EDUCATIONS/ARTICLES
040	=UNPUBLISHED
041	=Doctoral Dissertations
042	=Masters Theses
043	=PROGRESS Reports
	GUIDES
050	=General
	=Classroom Use
051	=For Learner (Instructional Materials)
052	=For Teacher (Teaching Guides)
053	=For Classroom Use (for Administrative and Supervisory Staff, Authors, Parents, Clergy, Librarians, etc.)
060	HISTORICAL MATERIALS
070	INFORMATION ANALYSES (Literature Reviews, State of the Art Papers)
071	=ERIC Information Analysis Products
080	JOURNAL ARTICLES
090	LEGAL/LEGISLATIVE/REGULATORY MATERIALS
100	AUDIO/VIDEO MATERIALS/MONITOR MATERIALS
110	=Computer Programs
120	STATISTICAL DATA (Numerical/Quantitative)
130	VIEWPOINTS (Opinion Papers, Position Papers, Essays, etc.)
	REFERENCE MATERIALS
130	=General
131	=BIBLIOGRAPHIES
132	=DIRECTORIES/CATALOGS
133	=GEOGRAPHIC MATERIALS
134	=VOCABULARIES/CLASSIFICATIONS/DICTIONARIES/GLOSSARIES
	REPORTS
140	=General
141	=Descriptive (Program/Project Descriptions)
142	=Evaluative/Feasibility
143	=Predictive/Forecasting
150	SPEECHES, CONFERENCE PAPERS (Individual) (See also 027)
160	TESTS, EVALUATION INSTRUMENTS
170	TRANSLATIONS
171	=MULTILINGUAL/INTERLINGUAL MATERIALS
999	OTHER, MISCELLANEOUS (Not Classifiable Elsewhere) (Always use in this category, if at all possible)



To determine the proper PUBTYPE code for a document, an ERIC indexer examines the item and then checks the "Descriptor to Publication Type Table" (see p. viii). For example, if the document in hand is a feasibility study, the table readily identifies it as a "code 142" item.

Similarly, this cross-reference chart is useful in the retrieval process. For example, if a user wanted samples of faculty bibliographies, the PUBTYPE code 060 could be searched, or an examination of the PUBTYPE code 060 could be used to help find bibliographies.

**NOTE:** To allow flexibility in classification, up to three PUBTYPE code assignments are permitted for a single document or article. All may be searched online. All catalogued for A/I appear in the Publication Type Index of that journal.

### Publication Type Descriptors

Labeling of publication type or document characteristics is also done by the use of Descriptors. For example, a document that includes the complete survey instrument (e.g., a questionnaire) used in a research study would be PUBTYPE coded 143 (Research/Technical Reports) and 160 (Tests, Evaluation Instruments). But it would also carry the Minor Descriptor QUESTIONNAIRES (Minor, because "questionnaire" is not the subject of the document). The use of specific form terms is not unusual in the Descriptor Field. However, as of March 1980, certain very broad form terms that coincide exactly with names of PUBTYPE Categories are not used for indexing document form in the Descriptor Field. These 22 form terms and their corresponding PUBTYPE codes are:

#### DESCRIPTORS CORRESPONDING TO PUBLICATION TYPE CATEGORIES

DESCRIPTOR	PUBTYPE CODE
AUDIOVISUAL AIDS	110
BIBLIOGRAPHIES	121
BOOKS	010
COMPUTER SOFTWARE	109
CONFERENCE PAPERS	110
CONFERENCE PROCEEDINGS	021
DICTIONARIES	122
DIRECTORIES	132
DOCTORAL DISSERTATIONS	021
GUIDES	050
MASTERS THESES	072
MULTILINGUAL MATERIALS	043
PRACTICUM PAPERS	043
REFERENCE MATERIALS	032
REPORTS	110
RESEARCH REPORTS	110
SERIALS	022
SPECIOMS	150
STATISTICAL DATA	110
TESTS	160
THESES	043
VOCABULARY	134

These very broad terms may be used as Descriptors (Major or Minor) if they apply to the subject of the document, as noted in the Thesaurus.

DESCRIPTOR	CODE
EDUCATIVE JOURNAL OR ARTICLE OR OTHER PUBLICATION WHICH WAS WRITTEN BY THE AUTHOR DURING THE PERIOD OF TIME INDICATED IN THE PUBLICATION DATE OR THE DATE OF THE PUBLICATION AS STATED IN THE JOURNAL OR THE EDITION AS THE SUBJECT OF THE DOCUMENT	100
EDUCATIVE (100-199)	100
LITERATURE JOURNAL	110
EDUCATIONAL JOURNAL	121
EDUCATIONAL	122
EDUCATIONAL EVALUATION	132
EDUCATION	140
EDUCATIONAL STATEMENT	141
EDUCATIONALS	142
EDUCATIONALS	143
EDUCATIONALS	144
EDUCATIONALS	145
EDUCATIONALS	146
EDUCATIONALS	147
EDUCATIONALS	148
EDUCATIONALS	149
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EDUCATIONALS	198
EDUCATIONALS	199

Thus if a document were a bibliography about how to compile bibliographies, it would have the PUBTYPE 131 (BIBLIOGRAPHIES) and also the Major Descriptor BIBLIOGRAPHIES (Major, because it is the subject of the document).

**NOTE:** "Document type" Descriptors (see table on p. viii) should not be Major Descriptors unless they are the subject of the document.

### FURTHER HINTS FOR RELEVANT RETRIEVAL

#### Non-Subject Access

One usually looks for information in ERIC by subject area, using Descriptors, Identifiers, and/or free-text phrases. Publication Type offers an additional refinement of the search process. There are other elements of ERIC's cataloging that are separate from the indexing process. However, that help limit a computer search even more precisely. They include a document's language, geographic origin (country, or country and state/province), and Target Audience. All three of these data elements are searchable only by computer. Language appears on both A/I and Cue citations as of January 1979. Geographic origin is used only for A/I, effective January 1979.

\*Further details on the Language, Geographic Origin, and Target Audience fields are given in the ERIC Processing Manual, Section 5: Cataloging, available for \$3.75 from the ERIC Facility. An earlier version of this document (without the Target Audience description) is available as ED 219 096 from the ERIC Document Reproduction Service.

THE AMERICAN

For Government, the new system will be introduced in the following manner:

NOTE: The ERIC Computer System automatically adds the generic audience "Practitioners" to records categorised by any of the five "practitioner" sub-categories.

The Target Audience field may be used to limit a computer search more narrowly. For example, adding Target Audience Practitioners to a search of the Descriptor **DROPOUT PREVENTION** would focus the search on literature on dropout prevention written specifically for practitioners.

Target Audience is an optional cataloging element. Not all documents identify an audience; some identify more than one. There are no restrictions on the number of audiences that may be cataloged as long as the above authority list is adhered to. However, if the number of practitioner groups involved is three or more (out of the five available), only the generic term 'Practitioners' is catalogued.

The Target Audience field has been a fully defined cataloging element for AIE since January 1984, and for OIE since September 1984. The terms "Practitioners" and/or "Students" have been added retrospectively to selected AIE citations announced during the period May 1979 through December 1983. No citations prior to May 1979 contain the Target Audience field.

Each of the major online retrieval vendors provides computer access to ERIC's Target Audience data in a different way and has a different segment of records containing Target Audience data on its file. These differences are summarized below:

THE SPANISH	THE SPANISH ARE * 2.5%. 5.5% = SPANISH (MEXICAN) SPANISH 50% FROM SPANISH CHILE FROM SPANISH CULTURE-DEPENDENT CHILE SPANISH (MEXICAN SPANISH) MEXICAN SPANISH AND SPANISH SPANISH)
THE SPANISH	THE SPANISH ARE * 2.5%. 5.5% = SPANISH (MEXICAN) SPANISH 50% FROM SPANISH CHILE FROM SPANISH CULTURE-DEPENDENT CHILE SPANISH (MEXICAN SPANISH) MEXICAN SPANISH AND SPANISH SPANISH)
THE SPANISH	THE SPANISH ARE * 2.5%. 5.5% = SPANISH (MEXICAN) SPANISH 50% FROM SPANISH CHILE FROM SPANISH CULTURE-DEPENDENT CHILE SPANISH (MEXICAN SPANISH) MEXICAN SPANISH AND SPANISH SPANISH)
THE SPANISH	THE SPANISH ARE * 2.5%. 5.5% = SPANISH (MEXICAN) SPANISH 50% FROM SPANISH CHILE FROM SPANISH CULTURE-DEPENDENT CHILE SPANISH (MEXICAN SPANISH) MEXICAN SPANISH AND SPANISH SPANISH)
THE SPANISH	THE SPANISH ARE * 2.5%. 5.5% = SPANISH (MEXICAN) SPANISH 50% FROM SPANISH CHILE FROM SPANISH CULTURE-DEPENDENT CHILE SPANISH (MEXICAN SPANISH) MEXICAN SPANISH AND SPANISH SPANISH)

## NOISE

1. Target Audience was selected to be a new and emerging field in January 2011 and to CIE in September 2011. There are some retrospective MIE meetings of Practitioners' and 'Students'.
2. Target Audience is not captured for all documents and journal articles, but only for those approximately 25% explicitly claiming a target audience.
3. Target Audience does not appear in the printed MIE and CIE affiliated journals.
4. Online access to Target Audience varies from one vendor to another.

## CONCUSSION

This brief review of the ERIC system has been intended to make users more aware of the system as a whole, of how the educational literature is indexed for the database, and of how the thesaurus fits into the overall information dissemination process.

Throughout this process, ERIC is committed to high quality performance standards while serving the entire spectrum of the educational community. Close contact and interaction with users in the field is of prime importance to ERIC. In this sense, ERIC is more than a database (or a thesaurus). It is an active network of dedicated professionals, responding to and anticipating the information needs of both the scholar and the practitioner in the broad field of education.